

Patent No.: 113217.120US1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
Frederick W. LARK et al. :
Serial No. 10/680,407 : Group Art Unit: 3624
Filed: October 8, 2003 : Examiner:
For: METHOD AND SYSTEM FOR COMPUTER-BASED AUCTIONING OF BASIC
GENERATION SERVICES

PETITION UNDER 37 CFR §1.47(a)

Honorable Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

In response to a Notice to File Missing Parts of Application, dated January 6, 2004,
submitted herewith are the following documents for filing in the above-referenced application:

1. A Declaration of Inventorship signed by seven of the eight inventors under 37 C.F.R. Sections 1.63-1.64;
2. Proof of Pertinent Facts regarding the non-signing inventor, David Salant, including Exhibits 1-20, and Invention Assignment Agreement;
3. Petition for a 5-month Extension of Time; and
4. Fees, that include:
 - (1) Statutory Basic filing fee of \$770.00
 - (2) Additional Claims Fees of \$1,738.00
 - (3) Late Filing Fee Surcharge of \$130.00.
 - (4) Fee for 5-month extension of time of \$2,010.00.

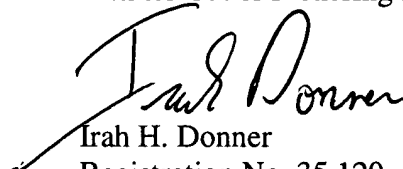
Applicants hereby petition the Commissioner of Patents and Trademark to accept the above documents in fulfillment of all documents needed to complete the filing requirements, and to accept the application for substantive examination.

Serial No. 10/680,407

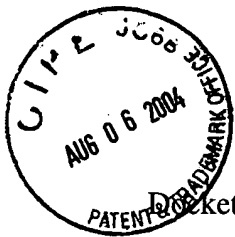
Please charge Deposit Account No. 08-0219 in the amount of \$4,648.00. To the extent necessary, charge Applicants any shortage fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 08-0219 and please credit any excess fees to such deposit account.

Respectfully submitted,

Wilmer Cutler Pickering Hale and Dorr LLP


Ira H. Donner
Registration No. 35,120

The Willard Office Building
1455 Pennsylvania Avenue, NW
Washington, DC 20004
202 942 8400 IHD/mgm
Date: 8/6/04



Patent No.: 113217.120US1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Frederick W. LARK et al.

Serial No. 10/680,407

Filed: October 8, 2003

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Group Art Unit: 3624

Examiner:

For: METHOD AND SYSTEM FOR COMPUTER-BASED AUCTIONING OF BASIC
GENERATION SERVICES

PROOF OF PERTINENT FACTS IN SUPPORT OF
PETITION UNDER 37 CFR §1.47(a)

Honorable Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

Refusal of an inventor to sign a declaration may be overcome by submitting a Petition under 37 CFR Section 1.47(a), a declaration under 37 CFR Sections 1.63 and 1.64, proof of pertinent facts, the required fee, and the last known address of the non-signing inventor, according to 37 CFR §1.47(a), as amplified in MPEP Section 409.03 and MPEP Section 409.03(d).

I hereby submit this proof of pertinent facts pursuant to 37 CFR §1.47(a) that one inventor of the referenced application, a David J. Salant, has repeatedly refused to sign a declaration of inventorship. Upon information and belief, the following facts of Dr. Salant's conduct pointing to a refusal are as follows:

Exhibit 1. Letter of January 30, 2004 to David J. Salant from Dana J. Bolton, attorney for Marsh & McLennan Companies, Inc., parent company of NERA employer of David

Salant, forwarding a copy of the patent application for review and declaration in support thereof for joint inventorship of the invention claimed therein;

Exhibit 2. Letter of May 3, 2004 to Dana J. Bolton from Jonathan Gentin, attorney of David Salant requesting compensation and additional information from Mr. Bolton on behalf of David Salant;

Exhibit 3. Letter of May 12, 2004 to Jonathan Gentin, from Robert C. Scheinfeld attorney for NERA, enclosing the National Economic Research Associates, Inc. Confidentiality Agreement and Invention Assignment signed by David J. Salant assigning all inventions developed in connection with his employment for NERA as of August 31, 2000;

Exhibit 4. E-mail of May 17, 2004 to Dr. David Salant from Irah H. Donner attorney for Electric Distribution Companies, successor in interest to NERA, requesting status of David Salant's review of patent application;

Exhibit 5. Letter of May 20, 2004 to Dr. David Salant from Irah H. Donner, acknowledged with signature by Dr. David Salant, agreeing initially to allow prosecution be conducted by the EDCs. This agreement was terminated shortly thereafter (Exhibit 11);

Exhibit 6. Letter of May 27, 2004 to Irah H. Donner from Jonathan Gentin, forwarding letter of David Salant requesting compensation;

Exhibit 7. Letter of May 27, 2004 to Robert Scheinfeld from Jonathan Gentin disputing ownership interest in patent application, inventorship and requesting compensation for David Salant's review of patent application even though the application was apparently not yet reviewed;

Exhibit 8. Letter of June 7, 2004 to Jonathan Gentin from Robert C. Scheinfeld disputing the need to compensate David Salant for review of the patent application;

Exhibit 9. E-mail of June 13, 2004 to Jonathan Gentin from Irah H. Donner requesting status of Dr. Salant's review of the patent application and submission of executed declaration;

Exhibit 10. E-mail of June 14, 2004 to Irah H. Donner from Jonathan Gentin indicating the desire for a conference call. A call was subsequently conducted where no agreement was reached as to whether Dr. Salant would review the patent application, and sign the declaration of co-inventor;

Exhibit 11. E-mail correspondence of July 19, 2004 and July 21, 2004 between Irah H. Donner and Jonathan Gentin requesting additional conference. In addition, the communications make clear that David Salant was not being represented concurrently with the EDCs. Further, a demand of the executed declaration was made to Jonathan Gentin, copied to David Salant, by July 26, 2004. Both Jonathan Gentin and David Salant were instructed that if the executed declaration was not received by July 26, 2004, David Salant would be considered an inventor refusing to execute the declaration. To date, i.e., August 6, 2004, no executed declaration has been received from David Salant;

Exhibit 12. E-mail correspondences of July 19, 2004, July 21, 2004 and July 22, 2004 between Irah H. Donner, Jonathan Gentin and David Salant addressing inventorship dispute between David Salant and the remaining seven (7) inventors;

Exhibit 13. E-mail of July 22, 2004 to Anthony Robinson from David Salant indicating his attempt to review the patent application and requesting compensation for same;

Exhibit 14. Memo of July 26, 2004 to Anthony Robinson from David Salant providing proposal to review the patent application of up to \$160,000;

Exhibit 15. E-mail correspondence of July 26, 2004 and July 27, 2004 between Jonathan Gentin, Irah H. Donner and David Salant, again requesting compensation for reviewing the patent application;

Exhibit 16. Memo of July 26, 2004 regarding Patent Application Serial No. 10/680,407 providing only partial comments to patent application, and no executed declaration;

Exhibit 17. Memo of July 28, 2004 providing additional issues with the patent claims;

Exhibit 18. PowerPoint presentation dated October 24, 2000, presented by David Salant, entitled "Design and Implementation of BGS Auctions," subsequent to the August 31, 2000 Invention Assignment in Exhibit 3 above;

Exhibit 19. E-mail correspondence dated August 6, 2004 from David Salant acknowledging receipt of the Declaration of joint inventorship, and indicating that he is awaiting instructions from Jonathan Gentin. The undersigned does not understand the relevance of any response Jonathan Gentin is awaiting with respect to David Salant's execution of the Declaration;

Exhibit 20. Declaration for Utility Application executed by David Salant claiming sole inventorship of the patent application subject to his claim changes in Exhibit 16.

Based upon the above Exhibits 1-20, the undersigned can only conclude that David Salant has refused to execute the declaration of joint inventor for the currently pending claims. The remaining seven inventors do not agree with David Salant's proposed changes to the claims. Acceptance of the present application under 37 C.F.R. Section 1.47(a) and 37 C.F.R. Sections 1.63-1.64 is respectfully requested.

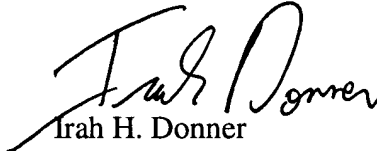
The last known address of Dr. Salant is:

Work: Optimal Markets, Inc
4000 Bridgeway, Suite 401
Sausalito, California 94965
dsalantsprint@earthlink.net

I hereby declare that the above facts are to the best knowledge of the undersigned.

Respectfully submitted,

Wilmer Cutler Pickering Hale and Dorr LLP


Ira H. Donner
Registration No. 35,120

The Willard Office Building
1455 Pennsylvania Avenue, NW
Washington, DC 20004
202 942 8400 IHD/mgm
Date: 8/6/04

U.S. Patent Application No. 10/680,407

Filed: October 8, 2003

Response to Notice to File Missing Parts of Non-Provisional Application

EXHIBITS 1 – 20

MMC

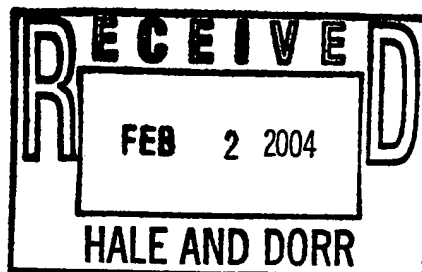
Dana J. Bolton
Senior Corporate Counsel

Marsh & McLennan Companies, Inc.
1166 Avenue of the Americas
New York, NY 10036-2774
212 345 5932 Fax 212 345 5627
dana.j.bolton@mmc.com

VIA FEDERAL EXPRESS

January 30, 2004

Mr. David Salant
One Front Street
Suite 2600
San Francisco, California 94111



Dear David:

As you know, there is pending a patent application directed to the New Jersey BGS auctions which was filed by the four New Jersey electric distribution companies referenced therein (the "EDCs") through their patent counsel, Hale & Dorr. A copy of the patent application is enclosed for your review. As you will see, the pending claims are specifically tailored to cover the auction rules as conceived and originally developed for the New Jersey BGS auctions during your employment with NERA. The EDCs and NERA believe that you should be listed as a co-inventor on the application, based on what they believe to be your contribution to the design of the auction rules, and specifically to the invention as presently claimed in the application. As such, Hale & Dorr has requested that I forward the enclosed declaration for your signature. Please review the application and, if you believe you should be listed as a co-inventor, please execute the declaration, and return it to me at your earliest convenience.

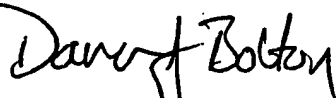
In addition, if you believe that any of the individuals who are listed in the application as co-inventors should not be, or that any individuals not listed in the application as a co-inventor should be, then let us know that as well (and the basis of your understanding), and Hale & Dorr will consider whether changes are appropriate.

Marsh • Putnam • Mercer
Marsh & McLennan Companies

Lastly, because this application is confidential and not yet published, please treat the enclosed as confidential material.

Please let me know if you have any questions or comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dana J. Bolton".

Dana J. Bolton

Enclosure

cc: William Taylor
NERA

Irah H. Donner, Esq.
Hale & Dorr

Robert C. Scheinfeld, Esq.
Baker & Botts

The Law Offices of
GENTIN AND ASSOCIATES

May 3, 2004

Via Facsimile

Dana J. Bolton
Senior Corporate Counsel
Marsh & McLennan Companies, Inc.
1166 Avenue of the Americas
New York, NY 10036

Re: Salant and Optimal Markets

Dear Mr. Bolton:

David Salant and Optimal Markets, Inc. have retained me in connection with intellectual property matters, including those touching upon Mr. Salant's work at NERA. I see that NERA is owned by Marsh & McLennan Companies, Inc. and I am therefore directing this letter to you.

I understand that Mr. Salant, Optimal Markets' Co-Founder, is a former employee of NERA and owns certain intellectual property in the field of clock auctions. I also gather that Mr. Salant's work is the subject matter of a patent application entitled "Method and System for Computer-Based Auctioning of Basic Generation Services" that was filed on behalf of four New Jersey electric distribution companies (the "New Jersey EDCs"). Mr. Salant is named a co-inventor on the patent application (currently pending before the United States Patent and Trademark Office), and the law firm of Hale and Dorr, patent counsel for the New Jersey EDCs, recently requested that Mr. Salant sign a letter agreeing to conditions regarding Mr. Salant's contribution to the application's prosecution.

Based on my review of the matter to date, NERA appears to show continuing ambiguity with respect to Mr. Salant's rights in the patent application as well as how those rights purportedly were acquired by the New Jersey EDCs. I'm hoping you can remove the ambiguity. Specifically, it is unclear to me how the New Jersey EDCs became the assignees on the patent application. How did the New Jersey EDCs acquire Mr. Salant's rights to and interest in the patent application? What documents (if any) convey NERA's purported rights (if any) in the patent application to the New Jersey EDCs? Please advise.

2049 MARYLAND STREET
REDWOOD CITY, CA 94061
PHONE: (415) 786-4062
FAX: (650) 649-1992
www.gentinlaw.com

**The Law Offices of
GENTIN AND ASSOCIATES**

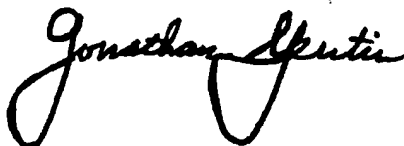
Bolton letter
May 3, 2004
Page 2

There also seems to be an open issue regarding Mr. Salant's compensation in connection with prosecution of the application. How does NERA propose to compensate Mr. Salant for assisting Hale and Dorr with the patent application? Finally, the license rights stemming from the patent application and, looking ahead to its issuance as a patent, remain unaddressed. Can I presume that Mr. Salant and Optimal Markets have a perpetual, worldwide, royalty free license to the patent application? Similarly, can I presume that Mr. Salant and Optimal Markets will be granted a perpetual, worldwide, royalty free license for the issued patent? Please advise.

In light of the royalty value associated with the patent application, the pending contractor selection for the 2004/2005 New Jersey auction, and the significance of Mr. Salant's contribution to the pending application, I would appreciate a prompt response to my inquiries. Please also send me Mr. Salant's August, 2000 Confidentiality Agreement with NERA along with any inventor assignment forms that Mr. Salant may have signed in connection with the subject patent application.

Thank you for your prompt attention and anticipated cooperation.

Sincerely yours,



Jonathan Gentin, Esq.

Cc: David Bucco
William Taylor

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BAKER BOTTS LLP

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May 12, 2004

Robert C. Scheinfeld
212-408-2512
FAX 212-4082501
robert.scheinfeld@bakerbotts.com

BY FEDERAL EXPRESS

Jonathan Gentin, Esq.
The Law Offices of Gentin and Associates
2049 Maryland Street
Redwood City, CA 94061

Re: Salant and Optimal Markets

Dear Mr. Gentin:

We represent NERA and your letter of May 3, 2004, to Dana Bolton has been referred to us for our review and response. You raise in your letter the issues of inventorship, ownership, and compensation regarding the New Jersey EDC's pending patent application entitled "Method and System for Computer-Based Auctioning of Basic Generation Services" (the "BGS Application"). We view these issues as distinct and as such address them separately below.

Inventorship: Regardless of who actually owns the BGS Application, either Mr. Salant is a co-inventor of the claimed invention, or not. If he believes he is a co-inventor, then he should sign the declaration previously presented to him. There is no legal basis to link Mr. Salant's signing of the declaration to a resolution of the ownership issue.

You state that the law firm of Hale and Dorr "recently requested that Mr. Salant sign a letter agreeing to conditions regarding Mr. Salant's contribution to the application's prosecution." More accurately, Hale and Dorr's letter offers to "keep [Mr. Salant] informed regarding the progress of the application and to permit [Mr. Salant] to review and approve within reason any proposed changes that may be made to the application or its claims during the application process prior to their inclusion in the application." This proposal was made to accommodate Mr. Salant (i.e., to meet his request to be involved in the application process), with the understanding that Mr. Salant did believe himself to be a co-inventor and was willing to sign the declaration.

Accordingly, if Mr. Salant truly believes himself to be a co-inventor he should sign Hale and Dorr's letter of April 23 and the declaration. Otherwise, we should move on. Either way, please let us know his position. If it turns out that Mr. Salant believes himself to be a co-inventor but does not sign the declaration, then we will be forced to proceed with prosecution of the application without Mr. Salant's signature.

Ownership: We see absolutely no "ambiguity with respect to Mr. Salant's rights in the [BGS] patent application." Nor is there any ambiguity regarding any other issue involving Mr. Salant's employment with and obligations to NERA.

As you will confirm by reviewing Mr. Salant's August, 2000 Confidentiality Agreement (a copy of which is enclosed at your request), Mr. Salant agreed that "all discoveries and products" he develops, produces or assists in developing "in connection with [his] employment with [NERA] shall be ...the property of [NERA] including without limitation any copyrights or rights of patent pertaining thereto." Section 5(c). This obligation is subject only to a very narrow exception, namely that Salant shall retain ownership to software and other intellectual capital "developed through Optimal Auctions." Section 5(d). This was to insure that Salant could continue with his own software business as was contemplated by the parties at the time.

Clearly, whatever contribution Mr. Salant made to the New Jersey auction and more particularly to the invention claimed in the BGS Application (which is directed specifically to the steps of the New Jersey auction), was made for a NERA project, as an employee of NERA, on NERA's behalf, and in consideration of the compensation received by Mr. Salant during his NERA employment. As a result, Section 5(d) does not apply to the BGS Application and NERA owns it completely, with the right to assign such intellectual property to whoever it chooses, in this case the New Jersey auction sponsors, the EDCs.

Mr. Salant may have raised with you concerns about his pre-NERA activities, or even his then concurrent Optimal Auctions activities, but the BGS Application does not cover such activities. Once you review the Application and consider the claims' scope, you will see for yourself that the application is directed to the very specific steps of the New Jersey auction, and does not over-reach to cover systems or methods which pre-date the New Jersey auction, to any one step or component of the method or system claimed in the BGS Application, or to any specific development made "through Optimal Auctions." Therefore, Mr. Salant has no ownership interest in the BGS Application.

Mr. Salant should also recognize that given the specific scope of the BGS Application, the fact that he has no ownership interest should have little or no impact on his ability to provide auction-related services to his clients.

Compensation: Regarding your request to effectively re-negotiate the relationship between NERA and Mr. Salant, our client respectfully declines. As you can see from the parties' written agreements, NERA is under no obligation to compensate Mr. Salant for assisting in the patent application process, or to provide a license. Indeed, Section 5(c) of the August, 2000 Confidentiality Agreement explicitly provides that Mr. Salant "agree[s] to execute at the request of [NERA] any subsequent documents which it may require as further evidence of this assignment."

BAKER BOTTS LLP

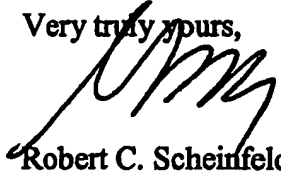
Jonathan Gentin, Esq.

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May 12, 2004

In short, if Mr. Salant considers himself a co-inventor of the claims of the BGS Application, then he is obligated to sign the declaration and to assign his rights to NERA. Please advise whether or not Mr. Salant will meet his obligations.

Very truly yours,



Robert C. Scheinfeld

Enclosure

cc: Dana J. Bolton, Esq.

**NATIONAL ECONOMIC RESEARCH ASSOCIATES,
INC.**

CONFIDENTIALITY AGREEMENT

In consideration of my employment by National Economic Research Associates, Inc., a California corporation, or any company affiliated with, controlled by, controlling or under common control with National Economic Research Associates, Inc. (collectively referred to herein as the "Company"), I hereby agree as follows:

1. Acknowledgement of Confidential Nature of Work

I understand and acknowledge:

- (i) that the nature of the Company's work is highly confidential;
- (ii) that as an employee of the Company I will learn highly confidential and sensitive information about the Company's clients; and
- (iii) that providing its clients with appropriate assurances that their confidences will be protected is crucial to the Company's ability to obtain clients, maintain good client relations, and conform to contractual obligations.

I also understand and acknowledge that I may learn or assist in developing highly sensitive data or other information relating to the Company and its operations. I understand that one purpose of this Agreement is to protect Confidential Information (as defined below) from unauthorized disclosure.

2. Definition of "Confidential Information"

a. For the purposes of this Agreement, "Confidential Information" shall consist of and include:

- (i) any and all information in whatever form relating to the businesses of any Company client, including but not limited to, a client's identity, finances, products, discoveries, databases, computer programs, frameworks, models, and marketing, selling and operating practices;

- (ii) any and all information in whatever form relating to the manner in which the Company conducts its business, including but not limited to, the Company's finances, products, discoveries, databases, computer programs, frameworks, models, and marketing, recruiting, and compensation practices; and
- (iii) any information not included in (i) or (ii) above which the person knows or should know is subject to a restriction on disclosure or which the person knows or should know is considered by the Company to be confidential, sensitive, proprietary or a trade secret.

b. Information which otherwise falls within the definition of "Confidential Information" in Section 2, paragraph a. above shall not be considered Confidential Information to the extent that:

- (i) the information has been published or made generally available, or is otherwise in the public domain, without breach of this Agreement; or
- (ii) the information was given to me by a party who was not obligated to maintain its confidentiality.

3. Nondisclosure of Confidential Information

Both during and after the term of this Agreement, I agree that unless otherwise expressly authorized to do so by the President of the Company, I will not use or disclose Confidential Information to any person, except as required to carry out my employment duties to the Company.

4. Return of Materials Upon Termination of Employment

Upon the termination of my employment with the Company for any reason, I will leave at the Company or return to the Company within seven (7) days:

- a. any originals and all copies of all files, notes, documents, slides (including transparencies), computer disks, printouts, reports and other media or property in my possession or control which contain or pertain to Confidential Information; and
- b. all property of the Company, including, but not limited to, supplies, keys, access devices, books, identification cards, computers, telephones and other equipment.

I agree that upon completion of the obligations set forth in Section 4, paragraphs a. & b. above, I will execute a statement declaring that I have retained no property of the Company or materials containing Confidential Information nor have I supplied the same to any person, except as required to carry out my employment duties to the Company.

I understand that a receipt signed by an officer or office manager of the Company itemizing the returned property and materials shall be necessary to demonstrate that such property or materials were so returned and the Company agrees not to unreasonably withhold production of such a receipt.

5. Ownership Rights

I understand and agree that:

- a. No license or conveyance of any rights or warranty to me is granted or implied by the Company furnishing or disclosing computer programs, databases, frameworks, and/or models to me.
- b. The Company shall retain whatever ownership and other proprietary rights it otherwise has in all computer programs, databases, frameworks and/or models which it furnishes or discloses to me.
- c. Subject to Section 5(d) below: (i) all computer programs, databases, frameworks and/or models, including all related documentation, and all other discoveries and products which I develop, produce or assist in developing or producing in connection with my employment with the Company shall be works for hire and therefore the property of the Company including without limitation any copyrights or rights of patent pertaining thereto; (ii) if for any reason a computer program, database, framework and/or model, or any other discovery or product which I develop or produce, in whole or in part, in connection with my employment with the Company is not considered to be a work for hire, this Agreement shall constitute an irrevocable assignment to the Company of all my rights, title and interest therein, including all rights of patent and copyright; and (iii) I agree to execute at the request of the Company any subsequent documents which it may require as further evidence of this assignment.
- d. The Company understands and agrees that ownership of the software and other intellectual capital that I have developed and will continue to develop through Optimal Auctions shall remain with me and Optimal Auctions, and Company shall not acquire any ownership rights therein as a result of my employment with the Company, provided that I agree that the Company and its affiliates shall have a perpetual, non-exclusive, worldwide, royalty-free license to use such software and intellectual capital (as the same may be modified and enhanced) for internal purposes and in connection with consulting services provided by the Company and its affiliates to their clients.

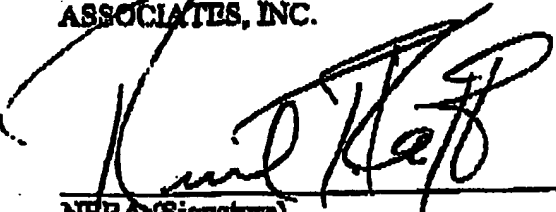
6. Miscellaneous

a. Both during my employment with the Company and after the termination thereof for any reason, I agree to provide the Company with such information relating to my treatment of Confidential Information or my work assignments for the Company or others, as the company may from time to time reasonably request in order to determine my compliance with this Agreement. I hereby specifically authorize the Company to contact my future employers to communicate the contents of this Agreement to such employers.

b. I hereby specifically authorize the Company to, in its sole discretion, and without further permission from me, furnish copies of this Agreement to any client or potential client of the Company and indicate that I have entered into this Agreement with the intention that the Company and each of its clients may rely upon my compliance with this Agreement.

Signed and agreed to by:

NATIONAL ECONOMIC RESEARCH
ASSOCIATES, INC.


NERA (Signature)

DAVID J. SALANT


David J. Salant (Signature)

8/31/00
DATE

Donner, Irah

From: Donner, Irah
Sent: Monday, May 17, 2004 5:23 PM
To: 'Internet'; 'dsalantsprint@earthlink.net'
Subject: Request to Review Patent Application

Dear Mr. Salant:

Just checking on your status for reviewing the patent application.

Can you confirm that you have received it and will be reviewing?

Thanks

Irah

Irah H. Donner
Senior Partner
Hale and Dorr LLP
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004
Tel: 202-942-8585
Fax: 202-942-8484
irah.donner@haledorr.com

Visit our website at -- <http://www.haledorr.com/>!

More about Irah Donner:
<http://www.haledorr.com/attorneys/bio.aspx?ID=324793905>

Donner's Patent Prosecution Book:
<http://storefront.bnabooks.com/epages/bnabooks.storefront/EN/product/1404>

All spellign and grammatical #%\$& errors are my own, and should not be attributed to Hale and Dorr or its clients.

Hale and Dorr LLP

This email message and any attachments are confidential and may be privileged. If you are not the intended recipient, please notify Hale and Dorr LLP immediately -- by replying to this message or by sending an email to postmaster@haledorr.com -- and destroy all copies of this message and any attachments. Thank you.
For more information about Hale and Dorr LLP, please visit us at <http://www.haledorr.com>.

5/17/2004

HALE AND DORR LLP
C O U N S E L O R S A T L A W

haledorr.com

THE WILLARD OFFICE BUILDING
1455 PENNSYLVANIA AVENUE, N.W. • WASHINGTON, D.C. 20004-1008
202-942-8400 • FAX 202-942-8484

IRAH H. DONNER

202-942-8585
irah.donner@haledorr.com

May 20, 2004

Mr. David Salant
Optimal Markets, Inc.
4000 Bridgeway, Suite 401
Sausalito, CA 94965

HALE & DORR DOCKETING

RE: 113217.20031

Action Date: _____

Action to be Taken: _____

Docketed By: BUS On: 5-21-04RE: U.S. Patent Application No.: 10/680,407
For: Method And System For Computer-Based Auctioning
Of Basic Generation Services
Our Reference: 113217.120 US1

Dear Mr. Salant:

This is to confirm that my firm represents the EDCs in connection with the above-referenced U.S. Patent Application number 10/680,407 and will be prosecuting this patent application before the United States PTO.

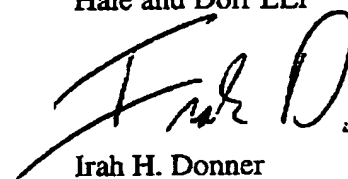
As a named co-inventor, you agree that my firm may prosecute the above-referenced patent application, subject to mutually agreed-upon reasonable revisions to that application. We understand that you have not yet had the opportunity to review the full patent application in detail. As a named co-inventor in the patent, you will work with us to review and revise the application to ensure its accuracy. You have requested that we keep you informed regarding the progress of the application and to permit you to review and approve within reason any proposed changes that may be made to the application or its claims during the application process prior to their inclusion in the application. Since you are named as a co-inventor on the application we will comply with your request, but we do want to make sure that you understand that any and all of our communications are privileged, that you agree to keep all of our communications confidential, and that you agree that you will not disclose to any other party the nature or content of our communications, except of course that you would be free to consult with your attorney. In agreeing to keep our communications confidential, we expressly acknowledge and agree that this does not prevent you from discussing the patent application or the underlying technology with third parties (provided a suitable written non-disclosure agreement is in force with such third parties), but only prevents you from revealing our communications with you. You may, of course, with or without a nondisclosure agreement, discuss and disclose information with any third parties which is rightfully already in the public domain or publicly available (e.g., on the BGS-Auction website.)

Mr. David Salant
May 20, 2004
Page 2

We understand that you have additional input concerning the named inventors for the application, and will work with us to ensure that all inventors are properly identified. We look forward to working with you to ensure the patent application is accurate.

Please have your lawyer review this proposal and, if acceptable, execute your signature in the space provided below."

Best regards,
Hale and Dorr LLP



Ira H. Donner

IHD:cj

Accepted and Agreed:

OPTIMAL MARKETS, INC.

By: 
David Salant

Date: MAY 20, 2004

The Law Offices of
GENTIN AND ASSOCIATES

May 27, 2004

Via Facsimile

Irah Donner
Hale & Dorr
1455 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-1008
Fax: 202-942-8484

Re: U.S. Patent Application No.: 10/680,407
Method And System For Computer-Based Auctioning Of Basic
Generation Services

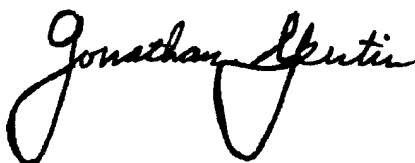
Dear Mr. Donner:

I represent Dr. David Salant and Optimal Markets, Inc. on intellectual property matters, including the referenced patent application.

Please confirm in writing to me that you received:

1. Dr. Salant's signed acknowledgement of your May 20, 2004 letter regarding the referenced patent application; and
2. Dr. Salant's cover letter to you, which addresses Dr. Salant's compensation for assisting with the prosecution of the referenced patent application.

Sincerely yours,



Jonathan Gentin, Esq.

2049 MARYLAND STREET
REDWOOD CITY, CA 94061
PHONE: (415) 786-4062
FAX: (650) 649-1992
www.gentinlaw.com

The Law Offices of
GENTIN AND ASSOCIATES

May 27, 2004

Via Facsimile

Robert Scheinfeld
Baker Botts LLP
30 Rockefeller Plaza
New York, NY 10112
Fax: 212-408-2501

Re: Salant and Optimal Markets

Dear Mr. Scheinfeld:

I received your May 12, 2004 letter.

I disagree with numerous assertions in your letter, including your assertions that "Mr. Salant has no ownership interest in the BGS Application" and that this "should have little or no impact on his ability to provide auction-related services to his clients."

Based on our review to date of the BGS Application, we also dispute your assertion that Section 5(d) of Dr. Salant's August, 2000 Confidentiality Agreement does not apply to the BGS Application. Section 5(d) provides that "ownership of the software and other intellectual capital" Dr. Salant develops through Optimal Auctions "shall remain with [Dr. Salant] and Optimal Auctions, and [NERA] shall not acquire any ownership rights therein". Since the BGS Application embraces software that Dr. Salant developed through Optimal Auctions, Section 5(d) of the Confidentiality Agreement applies to the BGS Application and Dr. Salant has an ownership interest in the Application. For example, Claim 1 of the BGS Application covers a system for conducting a simultaneous, descending clock auction comprising an application server that hosts "application software." The "application software," which Dr. Salant developed through Optimal Auctions, performs a series of functions that are the essence of the BGS Application.

Similarly, we take issue with your assertion that the BGS Application "does not cover systems or methods which pre-date the New Jersey auction."

Conspicuously absent from your letter is any response to the inquiries raised in my May 3, 2004 letter concerning how the New Jersey EDCs became the assignees on the BGS Application. How did the New Jersey EDCs acquire Dr. Salant's rights to and interest in the BGS Application? What documents conveyed NERA's alleged

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www.gentinlaw.com

The Law Offices of
GENTIN AND ASSOCIATES

Scheinfeldletter
May 27, 2004
Page 2

interest in the BGS Application to the New Jersey EDCs? Please advise.

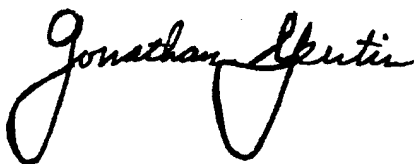
As to your question regarding inventorship: Dr. Salant is an inventor of the claims contained in the BGS Application. Dr. Salant has signed and returned Hale and Dorr's April 23 letter. Dr. Salant has also alerted Hale and Dorr that he anticipates being paid for the time he spends assisting the law firm with their prosecution of the BGS Application. The BGS Application exceeds 200 pages and contains more than 100 claims. Dr. Salant is likely to spend significant time assisting with the application. He is not an employee of the New Jersey EDCs or NERA. Under these circumstances and normal business practices, Dr. Salant ought to be paid for his assistance.

You can see that from our perspective a number of important issues remain unresolved. Dr. Salant would very much like to resolve these issues without resorting to litigation. To this end, please propose a convenient time in the next two weeks for us to discuss a mutually acceptable solution to this matter, which I anticipate will embrace the following issues:

1. Dr. Salant's intellectual property rights in simultaneous descending clock auctions and NERA's interest therein;
2. Optimal Markets' Software License;
3. The BGS Application; and
4. Compensation for time Dr. Salant spends assisting Hale and Dorr in the prosecution of the BGS Application.

Please be advised that this letter is written without prejudice to any of Dr. Salant's and Optimal Markets' rights and remedies, all of which are expressly reserved.

Sincerely yours,



Jonathan Gentin, Esq.

2049 MARYLAND STREET
REDWOOD CITY, CA 94061
PHONE: (415) 786-4062
FAX: (650) 649-1992
www.gentinlaw.com

BAKER BOTTS LLP

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10112-4498
212.408.2500
FAX 212.408.2501

AUSTIN
BAKU
DALLAS
HOUSTON
LONDON
MOSCOW
NEW YORK
RIYADH
WASHINGTON

Robert C. Scheinfeld
212-408-2512
FAX 212-4082501
robert.scheinfeld@bakerbotts.com

June 7, 2004

BY FACSIMILE

Jonathan Gentin, Esq.
The Law Offices of Gentin and Associates
2049 Maryland Street
Redwood City, CA 94061

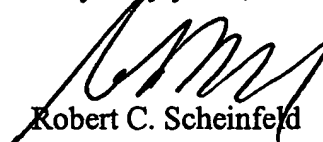
Re: Salant and Optimal Markets

Dear Mr. Gentin:

Thank you for your response of May 27, 2004, but we disagree with your assessment. As stated in my earlier letter, whatever contribution Dr. Salant made to the New Jersey auction and/or to the invention claimed in the BGS Application (which is directed specifically to the New Jersey auction), he did so as a NERA employee, and was fully compensated as a NERA employee. We see no basis for Dr. Salant to "double dip" now in a perceived attempt to hold up the patent application process.

We understand, however, that Dr. Salant has requested a meeting with David Bucco this week. David will certainly listen, but we do not expect our views to change. We also do not expect David to change Dr. Salant's mind but hopefully their discussions will allow Dr. Salant and NERA to move forward.

Very truly yours,



Robert C. Scheinfeld

cc: Dana J. Bolton, Esq.

Donner, Irah

From: Donner, Irah
Sent: Sunday, June 13, 2004 3:35 PM
To: 'info@gentinlaw.com'
Subject: Auctioning of Basic Generation Services

Mr. Gentin:

I have received your letter of May 27, 2004.

In addition, I have received Dr. Salant's signed acknowledgement and his cover letter regarding compensation.

I assume that you understand that my law firm represents the EDCs and NERA with respect to the patent application. We do not represent NERA directly with respect to employment matters.

Have you made progress regarding Mr. Salant's request to NERA? Time is running short, and we need Mr. Salant to review the patent application soon.

Please let us know the status and how we might be able to help.

Thanks

Irah

Irah H. Donner
Wilmer Cutler Pickering Hale and Dorr LLP
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004
Tel: 202-942-8585
Fax: 202-942-8484
irah.donner@wilmerhale.com

More about Irah Donner:
<http://www.haledorr.com/attorneys/bio.aspx?ID=324793905>

Donner's Patent Prosecution Book:
<http://storefront.bnabooks.com/epages/bnabooks.storefront/EN/product/1404>

All spellign and grammatical #%\$& errors are my own, and should not be attributed to this law firm or its clients.

This email message and any attachments are confidential and may be privileged. If you are not the intended recipient, please notify Wilmer Cutler Pickering Hale and Dorr LLP immediately -- by replying to this message or by sending an email to postmaster@wilmerhale.com -- and destroy all copies of this message and any attachments without reading or disclosing their contents. Thank you.

For more information about Wilmer Cutler Pickering Hale and Dorr LLP, please visit us at <http://www.wilmerhale.com>.

6/13/2004

Donner, Irah

From: Jonathan Gentin [jg@gentinlaw.com]
Sent: Monday, June 14, 2004 5:12 PM
To: Donner, Irah
Cc: info@gentinlaw.com
Subject: Re: Auctioning of Basic Generation Services

Irah:

I'll call you to discuss.

Regards,

Jonathan Gentin
Gentin and Associates
<http://www.gentinlaw.com>
Phone: 415-786-4062
Fax: 650-649-1992

> Mr. Gentin:

>

> I have received your letter of May 27, 2004.

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> In addition, I have received Dr. Salant's signed acknowledgement and his
> cover letter regarding compensation.

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> soon.

>

> Please let us know the status and how we might be able to help.

>

> Thanks

>

> Irah

>

>

>

> Irah H. Donner
> Wilmer Cutler Pickering Hale and Dorr LLP
> 1455 Pennsylvania Avenue, N.W.
> Washington, DC 20004
> Tel: 202-942-8585
> Fax: 202-942-8484
> irah.donner@wilmerhale.com

>

> More about Irah Donner: <?xml:namespace prefix = o ns =
> "urn:schemas-microsoft-com:office:office" />

>

> <http://www.haledorr.com/attorneys/bio.aspx?ID=324793905>
> <<http://www.haledorr.com/attorney/biodetail.asp?ID=D967708766>>

>

>

> Donner's Patent Prosecution Book:

>

> <<http://storefront.bnabooks.com/epages/bnabooks.storefront/EN/product/1404>>
> <http://storefront.bnabooks.com/epages/bnabooks.storefront/EN/product/1404>

>

Donner, Irah

From: Jonathan Gentin [jg@gentinlaw.com]
Sent: Wednesday, July 21, 2004 4:04 PM
To: Donner, Irah
Cc: David
Subject: RE: US Patent Application No. 10/680,407

Irah --

Dr. Salant and I would like to discuss the declaration with you. Are you available this Friday July 23 at 1 P.M. your time?

Regards,

Jonathan Gentin
Gentin and Associates
<http://www.gentinlaw.com>
Phone: 415-786-4062
Fax: 650-649-1992

> Jonathan:

>

> I have attached the portion of the NERA agreement regarding intellectual property ownership.

>

> Regarding the declaration document, I am also attaching the document for Dr. Salant's signature. I have crossed out representation for now. As discussed, until all issues are resolved, I will not be considered Dr. Salant's patent agent. In addition, since the previous document was never filed at the Patent Office, the previous agency document has been annulled.

>

> Please arrange for Dr. Salant to sign the attached declaration as soon as possible. If I do not receive the signed document by July 26, 2004, I will proceed to prepare papers to have the patent application accepted at the Patent Office without Dr. Salant's signature.

>

> Best Regards,

>

> Irah

>

> -----Original Message-----

> From: Jonathan Gentin [mailto:jg@gentinlaw.com]

> Sent: Monday, July 19, 2004 10:32 PM

> To: Donner, Irah

> Subject: US Patent Application No. 10/680,407

>

>

> Irah --

>

> Please review the attached power point presentation so that I can call you to discuss.

>

> Per your offer during our July 12 teleconference, please send me the agreement between NERA and the NJ EDCs regarding ownership of the subject patent application.

>

> Finally, as I requested, please send me written confirmation that you have revoked the power of attorney that Dr. Salant signed.

>

> Thanks for your attention and cooperation.

>

> Jonathan Gentin

Donner, Irah

From: david.salant [ds2243@columbia.edu]
Sent: Thursday, July 22, 2004 7:54 AM
To: Donner, Irah; jg@gentinlaw.com
Subject: RE: US Patent Application No. 10/680,407

I am looking forward to getting this application finished. I would be available at noon Eastern time. I have a bunch of questions in what I have read so far. If Jonathan can make that earlier time, I can as well.

Thanks

At 04:25 AM 7/22/2004, Donner, Irah wrote:

>Look forward to speaking to you then - I will only have about 15 minutes.

>

>If possible - 12:00 my time will leave more time.

>

>Also, I discussed the inventorship/inventors at length with the inventors.

>All agree to the current makeup. All agree that Milgrim was more of a

>verification and not designer.

>

>Therefore, from our perspective, changing the inventors is not an option,
>unless there are compelling reasons.

>

>Thanks

>

>Irah

>

>-----Original Message-----

>From: Jonathan Gentin [mailto:jg@gentinlaw.com]

>Sent: Wednesday, July 21, 2004 4:04 PM

>To: Donner, Irah

>Cc: David

>Subject: RE: US Patent Application No. 10/680,407

>

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>Jonathan Gentin

>Gentin and Associates

><http://www.gentinlaw.com>

>Phone: 415-786-4062

>Fax: 650-649-1992

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> >
> > Irah

> >
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> > From: Jonathan Gentin [mailto:jg@gentinlaw.com]
> > Sent: Monday, July 19, 2004 10:32 PM
> > To: Donner, Irah
> > Subject: US Patent Application No. 10/680,407

> >
> >
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> >
> > Thanks for your attention and cooperation.

> >
> > Jonathan Gentin
> > Gentin and Associates
> > <http://www.gentinlaw.com>
> > Phone: 415-786-4062
> > Fax: 650-649-1992

David Salant
Adjunct Senior Research Scholar
Columbia Institute for Tele-Information
Columbia University
Uris Hall, Suite 1A
3022 Broadway
New York, NY 10027

Donner, Irah

From: David Salant [dsalantsprint@earthlink.net]

Sent: Thursday, July 22, 2004 7:46 AM

To: anthony.robinson@pseg.com

Cc: Donner, Irah; jg@gentinlaw.com

July 22, 2004

Tony:

Thanks very much for taking the time to talk with me a couple of days ago.

This memo is intended to summarize our conversation. Please advise if I have failed to do so accurately.

First, I am working with Mr. Donner to get the patent filed in a timely fashion. There is a bit of a time crunch. Based on our conversation, I am assuming that compensation for time spent will be based on a final agreement between me and the EDCs.

I will give Mr. Donner a preliminary budget. My estimate will be based on a limited understanding of the work required and I will keep you and Mr. Donner updated as matters progress.

Second, I was going to prepare a proposal to cover all time costs of reviewing the patent and terms for my conveying whatever rights I may have relative to that IP so as to satisfy the EDCs need to use it. The proposal would also include provisions for my accessing the IP. If the EDCs want to change software suppliers, the proposal will contain some conditions only related to IP that I may have created and which the EDCs do not already own.

We probably both need legal advice about what I own and what has not been conveyed, as well as what party retains "ownership" and is licensing what to who. I will have my attorney work with Mr. Donner to try to find the most logical licensing arrangement for all concerned.

7/28/2004

Third, as we discussed on the phone, it seems that you are in the uncomfortable position of being in the middle of an employment matter concerning NERA and myself. While I can appreciate your predicament, and I hope you can also understand mine: NERA keeps telling me that this is not their issue and I should negotiate with the EDCs. As early as July 7, 2001, I had in person and in writing advised NERA's President (Dick Rapp), at least two other members of its Management Committee and its Corporate Counsel (Dana Bolton) of the need to resolve this matter. They have yet to take action. To the extent that the EDCs may view a matter as an issue for NERA to address, without requiring EDC involvement and that NERA may disagree, NERA will likely need to be a party to the agreement. I believe this is also the case as long as the EDCs are going to retain NERA as the auction manager. I will be discussing this matter with NERA's Management Committee over the next few days. As this involves issues not common knowledge within NERA, you may only want to discuss specifics with NERA's Management Committee or its attorneys, and not with other NERA Officers or Staff. Other parties within NERA are not part of this discussion.

Thanks again for your continued cooperation. I look forward to working with you to get these matters resolved. In the meantime, please feel free to call me should you wish to discuss any of these matters.

Regards,

David Salant

David Salant
dsalantsprint@earthlink.net
+1-917-415-0451

This e-mail and any attachments may be confidential or legally privileged. If you received this message in error or are not the intended recipient, you should destroy the e-mail message and any attachments or copies, and you are prohibited from retaining, distributing, disclosing or using any information contained herein. Please inform us of the erroneous delivery by return e-mail. Thank you for your cooperation.

7/28/2004

Date:: July 26, 2004

From: David Salant

To Anthony Robinson

Cc: Irah Donner, Jonathan Gentin

Re: BGS Patent Application

Background:

I have been engaged in contractual discussions with NERA, the BGS Auction manager. In regards to the BGS patent application, NERA has advised me that I should contact the EDCs directly about Intellectual Property Rights to which I retain ownership and are contained in the BGS patent application.

I am also the primary author of the BGS auction rules and have provided Irah Donner, patent counsel for the New Jersey EDCs, documents I created dating to October, 2000 that describe the auction design options and the eventual auction design. I completed initial drafts of the auction rules by December, 2000. Based on this documentation and preliminary review of the patent application, there appears nothing in the application that was created by any other NERA employees or PSE&G employees. One other party, Paul Milgrom of Stanford University, did contribute to the auction volume adjustments. I have not completed a review of the claims in the patent application with Mr. Donner to verify this assessment. I am in process of doing so. This review is necessary if the EDCs want to ensure the patent will have some efficacy and to reduce the likelihood of further disputes.

I am no longer a NERA employee. I was employed by NERA from mid-2000 to September 30, 2003. My employment contract with NERA, which was executed during the summer of 2000, limits NERA's rights to any IP that I may have created as a NERA employee. My contract with NERA also provides that ownership of software and certain other IP that I developed while a NERA employee belongs to me.

As early as summer 2001, I had repeatedly advised NERA's Management Committee, President and Counsel (both in person and in writing) of the need to negotiate licensing terms to provide NERA rights to the IP now in question. NERA has never responded to any request from me to negotiate an agreement. Instead NERA has steadfastly maintained that this is a software issue not applicable to NERA since it does not provide software. In addition, NERA informed me that "conflicts" prevented me

Confidential

July 26, 2004

from serving as a Head of NERA's auction practice, advising on the BGS auctions and serving as a Director of Alkera. As a result, NERA advised me that I needed to resign and divest myself of all responsibilities and duties at Alkera.

Since leaving NERA, I founded another auction software company, Optimal Markets, for which I maintain day-to-day operational involvement.

Anthony Robinson and Mr. Donner have requested a budget for reviewing the BGS Patent Application, currently pending before the U.S. Patent and Trademark Office. I responded that my willingness to help review the patent application on behalf of the EDCs was in part a function of their desire to re-sell the IP to rivals in other jurisdictions. Mr. Robinson suggested I prepare a proposal granting the EDCs the rights they need and addressing my concerns. This memo is in response to that request. In light of an August 6, 2004 deadline to complete the patent application, I have been diligently working on this review to help the EDCs from having to abandon the patent application. To date, whatever time I have spent on this review has been without any compensation.

Patent Application Review:

To date, I have expended over 60 hours reviewing the patent application, and discussing the patent application with attorneys and NERA's Management Committee. The patent application has 107 claims and exceeds 200 pages. I have incurred \$6,000 in legal costs related to the patent application and I expect to incur another \$8,000. Mr. Donner has requested that I provide a written description of each and every issue that I maintain is inaccurate. There are also inventorship questions regarding the patent application. Mr. Donner suggested I identify those areas of concern, so that he can query or interview others who have been named as inventors on the application. The time required for me to complete the tasks Mr. Donner has requested depends in large part on Mr. Donner. However, I expect to devote another 40-60 hours over the next 10 days to meet the August 6 deadline for the patent filing. Mr. Donner explained that additional time may be needed after the filing deadline to amend the application. My initial review has already uncovered several inaccurate statements that could undermine the utility of the patent, if it is issued. This time would be billed at my standard billing rates.

Licensing Terms:

In exchange for the payment amounts and license rights described below, I am prepared to convey my IP rights to the EDCs solely for their use in BGS auctions. The EDCs should be advised that the current auction manager and its subcontractors have yet to obtain such rights. It is hoped that those discussions will conclude shortly and amicably, even though NERA claims it has no interests on the grounds that this is solely an EDC matter. Whatever rights that the EDCs own related to BGS auctions, I seek royalty free license and sublicenseable rights (including rights to the patent application and ensuing patents) in perpetuity for use outside of New Jersey default service auctions. I would also want the EDCs to indemnify me against any third party IP claims, including those stemming from the patent application.

I am requesting a one-time payment of \$10,000, provided that the EDCs purchase auction software from Optimal Markets. The license fee for the software, assuming the EDCs approve it by November 1, 2004, would be \$60,000 for one year and \$150,000 for three years. Optimal Markets software requires no support from Optimal Markets to install or use, other than a CD containing a .war file. Optimal Markets would include 60 hours of customization, which is unlikely to be needed. If there were a dispute over whether the Optimal Markets software dominates alternatives, a third-party neutral would make the determination. Possible third-party neutrals are the BPU advisor, Charles River Associates or JAMS.

At this time, I believe that Professor Paul Milgrom's contribution to the auction volume adjustment rules may have been essential to the invention embodied in the patent application. These beliefs are based, in part, on very preliminary discussions with Mr. Donner. In particular, Professor Milgrom provided verification based on specific mathematical mechanism design models that the volume adjustment provisions would mitigate incentives for strategic supply withholding and not create incentives for other types of anti-competitive behavior. Professor Milgrom also identified incomplete switching provisions in the Year 4 BGS rules. The proposal outlined above does not cover any IP rights that Professor Milgrom may have as a result of the contract work he did on the Year 4 BGS auction rules. I have not had any specific discussions with Professor Milgrom about what claims he may have. Milgrom's involvement was as an advisor and was limited in most other respects.

Confidentiality:

The specific terms of this proposal are being presented solely to the EDCs in a good faith effort to promptly resolve the IP licensing concerns of the EDCs. In particular, I am engaged in ongoing discussions with the Auction Manager, NERA. I have only told NERA I am trying to resolve this issue directly with the EDCs, as they have suggested. I agree to keep the details of this proposed agreement confidential and would expect the EDCs to do the same, except as agreed to in advance by all parties.

Conclusion:

In light of the circumstances, the proposal outlined here is in an effort to construct a fair and reasonable one - one which is intended to swiftly resolve any open issues. Based on past experience and performance, I also believe that I can be of significant value in assisting with the patent application and ensuring that the EDCs have access to reliable software for their current and future needs.

Donner, Irah

From: David J. Salant [dsalantsprint@earthlink.net]
Sent: Tuesday, July 27, 2004 9:19 PM
To: Donner, Irah; jg@gentinlaw.com
Cc: anthony.robinson@pseg.com
Subject: Re: Application Serial No. 10/680,407

Mr. Donner:

I had sent the proposal directly to Tony Robinson and copied you at his request.

My understanding is that Tony did want a budget and did want me to proceed with review of the patent application.

Tony did not promise budget approval, but I would have to assume that approval would be provided to respond to your requests.

The proposal was largely intended to address the issue of ownership. It appears that the EDCs may be assuming never conveyed IP that it may not own.

Also, to be clear, the software proposal is only effective if it provides the EDCs with a better solution than they now have. Otherwise, the fee I requested was \$10K. I tried to keep that fee modest, but thought something more than a token amount would be appropriate.

-----Original Message-----

From: "Donner, Irah" <Irah.Donner@wilmerhale.com>
Date: Tue, 27 Jul 2004 11:53:56
To: <jg@gentinlaw.com>
Cc: "David " <dsalant@optimalmarkets.com>
Subject: RE: Application Serial No. 10/680,407

Jonathan:

As discussed yesterday, I will be forwarding Dr. Salant's proposal to the EDCs today. I expect a decision by the end of this week.

As also discussed, I do not know whether the EDCs will agree to license Dr. Salant's software, or whether they will agree to provide any budget/compensation to Dr. Salant for reviewing the patent application or anything else at this time.

Therefore, Dr. Salant should consider that the time he is spending on the patent application as part of his obligation to review the patent application as a potential co-inventor, until I receive a decision from the EDCs.

Best Regards,

Irah

-----Original Message-----

From: Jonathan Gentin [mailto:jg@gentinlaw.com]
Sent: Monday, July 26, 2004 6:23 PM
To: Donner, Irah
Cc: David
Subject: Application Serial No. 10/680,407

Irah --

Per our discussion earlier today, please find Dr. Salant's comments attached.

Jonathan Gentin
Gentin and Associates

July 26, 2004

CONFIDENTIAL

My comments on Patent Application Serial No. 10/680,407:

Please confirm that I have the complete patent application. I have 205 pages and 107 claims. Independent claims are claims numbered 1, 10, 42, 75 and 107. At this stage, I will focus on these claims.

- (0) Minor language comment. The term in the application that states switches and other bids can be "refused" differs from the language in the auction rules that state that bids can be "disallowed." The latter term was applied to convey the fact that there are rules to determine when elements of a bid are to be disallowed; the auction manager has no discretion to "refuse" a bid or an element of that bid.
- (1) Summary of claims
 - a. Claim 1 – A system for conducting a computer-based simultaneous multiple descending clock auctions (SDCAs). This was the design I developed, summarized in my Oct. 2000 power point presentation. I designed a working prototype prior to April 2001.
 - b. Claim 10 – A method of conducting computer based auction in SDCA format. I believe that this is covered by prior art.
 - c. Claim 42 – A method of conducting an auction in SDCA format for BGS. It would appear that this is a software-based method and that there would be nothing, or almost nothing in this method that was created by any of the other 7 named individuals in the patent application. Not only does my Oct. 2000 power point presentation contain this method, but many of the other steps are described in numerous other documents developed prior to that date.
 - d. Claim 75 – A method of conducting a computer-based auction in SDCA format. This claim appears to be virtually identical to Claim 10 except for provisions in the event of computer failing requiring back-up bidding procedures. I believe that this is covered by prior art.
 - e. Claim 107 – A method of conducting a computer-based auction in SDCA format. Include provisions for back-up procedures in case of computer failure specifying use of confidential information, such as bidding codes, that an auction manager would supply to each bidder. I am not sure I see anything in this Claim not covered elsewhere, e.g., in Claim 75.

(2) Specific comments:

- a. Claim (1).

- i. Page 164, line 15. I am not sure about a separate "Application Server." The application runs within Tomcat, which I believe is a web-server. I don't recall there being a separate "application server." I am not sure exactly what is an "application server" in this context.
 - ii. Page 164, line 13. Portions need not be equal. This is overly restrictive. After Year 4, the first year of auctions, this was changed.
 - iii. Page 164, line 18. Grammar? "... for each of the at least one of the plurality of products ...". Why the "the" before least one. Indeed, there need not be a second round. In which case the "at least one" should be deleted as well. Similar comment at line 24 on page 164.
 - iv. Page 165, Paragraph (B). Incomplete description of the round results being reported.
 - v. Page 165, Paragraph (C). There is no need for at least one subsequent round.
 - vi. Page 166, line 3. I did not understand the wording. Rather than "received a number of tranches bid one of equal to and less than the tranche target for that product ..." I would suggest "received a number of tranches bid equal or less than the tranche target for that product ...". A similar comment applies elsewhere, including Page 166, line 15.
 - vii. Page 166, lines 6 -12. Description of what is reported is inaccurate.
 - viii. Page 166, Paragraph (E). This is very unclear. This is an essential point. The auction only ends when there is no excess supply for any product.
 - ix. Page 166, line 24. I don't believe there was a separate database server.
 - x. Page 167, line 3. "the at least one ...". Wording?
 - xi. Page 167, line 8. "at least one" is not needed, and suggests that the auction design requires at least one withdrawal or switch. Further, withdrawal is not the appropriate term. Reduction in supply or eligibility is much more appropriate.
 - xii. Page 167, lines 17 and 18. Only individual bidders can reduce or switch. Rather than "at least one," it should say "one or more".
- b. Claim (3) WAN vs. VPN. Really a VPN?
- c. Claim (6). Needs to specify who is told what when, and describe options more completely. As specified, auction process won't reach a timely and efficient conclusion.

CONFIDENTIAL

July 28, 2004

This is summary of what I view to be the origination of the claims in the patent application. Note, most of the claims contain some confusing or inaccurate statements, and so my description is based on my guesses as to the features being described in each claim.

Further, this is not a detailed line-by-line description, but is intended to describe my more significant concerns about inventorship, and in a manner that can be addressed expediently.

The main claims seem to be with the following exceptions either work I did, prior art, or selection between options. I explain more fully below.

The exceptions I found were:

- Some, in my view trivial and somewhat odd. One of which is a backup bidding process that is by postal or hand delivery (P.185 Line 1). This is odd in that the auction logistics do not really permit postal or hand delivery. Of course, an auction can be conducted via postal delivery. However, such an auction might not make sense for BGS as energy prices can be volatile and energy price variations can occur with a frequency that make a postal auction impractical.
- A number of the features may have been contributed by Alkera staff. For instance, the sequence by which exit bids and switches are sorted. The description of this sequence does not appear complete and accurate in the application. Also, Milgrom did contribute to this part of the analysis. No Alkera staff was named.
- The idea of extending rounds was not original to BGS auction. Arguably the implementation features are unique. I am not sure who was responsible.
- The idea of pausing the auction for revising target auction volume (Claim 106) was based on the pause feature I had included in almost all previous SMR auctions I had developed. The need or desirability of this feature, especially in the BGS environment, is questionable.
- The specific decisions about the round or rounds in which the auction volume adjustments were made by a group. The decisions about the precision with which to report excess supply (e.g., multiples of 5, 10, or some other number of lots) was also a group decision. You should probably confirm which parties in the application contributed to the decision.
- Clock auctions had been conducted previously. Descending price clock auctions were more novel. I would not be comfortable signing a statement attesting to accuracy of a

claim that clock auctions are a new creation of the EDC BGS auction, especially one drafted so broadly as to cover *all* clock auctions. There is prior art. The claim of novelty of the clock auction application to SDCA BGS auctions is accurate.

*Design and Implementation
of
BGS Auctions*

David J. Salant, Ph.D.

NATIONAL ECONOMIC
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October 24, 2000

Consulting Economists

NATIONAL ECONOMIC
RESEARCH ASSOCIATES

October 24, 2000

- **Auction Design Team Objectives**
- **Components of Auction Design: Auction Format and Bidding Environment**
- **Recommendations and Rationale**
- **Details of the Analysis**
 - **Main Auction Format Alternatives**
 - **Features of the Bidding Environment**

NERA Approach to Auction Advisory Services (Initial Plan)

Understand Fundamentals of Market Environment

- Supply demand
- Likely bidders
- Bidder positions

Understand Client Auction Objectives

Understand external constraints

- Intervenor positions
- Regulator review

Develop and analyze competitive auction design

Evaluate and select the preferred design

Implement the design

*PSE&G had developed numerous alternatives that NERA evaluated

Source: NERA

1

Auction Design Goals

Encourage Participation

- Risk allocation implied by design should favor high participation in the auction.

Minimize Overall Procurement Costs

- Low overall procurement costs should be expected given auction design.

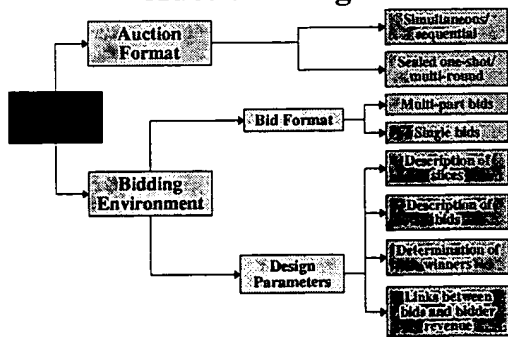
Provide True Market Signals

- Bids for different market segments should reflect market price differentials.
 - Y4 bids are to reflect seasonal differentials
 - Y5 bids are to reflect differences in customer classes

Auction Design Components

- *Two components* of auction design:
 - Auction format
 - Process by which offers are submitted by providers and reviewed.
 - Bidding environment
 - Description of items to be bid and format of bids, determination of winners, defining link between bids submitted and payments received.
- *Each design feature* can have a significant impact on auction results.
- *Auction design components were analyzed concurrently.* An auction format can be used with many bidding environments having different characteristics.

Auction Design



Auction Design Analysis

Overall Goal

- Recommend a BGS auction design given PSE&G/PSEG objectives and regulatory constraints that fulfills goals

Starting Point

- Strawman bidding environments for Y4 and Y5 as developed by the PSE&G team

Method

- Identify and analyze alternative auction formats
- Analyze incentives of strawmen and of alternatives; determine how well goals are met
 - Recommend auction format and optimal bidding environment

Alternatives Reviewed Y4

Auction Format

- Simultaneous versus sequential bids
- Sealed one-round bids versus multi-round auctions
- Discretionary versus non-discretionary bids

Bidding Environment

- Bid Format Alternatives
 - Multi-part bids – weighted and non-weighted
 - Single bids
 - Yearly bid
 - Fixed seasonal differentials
- Design Parameters for Each Alternative
 - Description of slices horizontal versus vertical slices
 - Description of bid
 - Determination of winners
 - Link between bids and bidder revenue

Y4 Recommendations: Auction Format

Auction Format

- Simultaneous multi-round (SMR) auction
 - All items are sold simultaneously but participants make several rounds of offers
 - Auction ends only when no bidder is willing to put in another offer on any item
 - If bidder is outbid, bidder always has an opportunity to re-bid
 - Participants have some flexibility to change the items on which they bid and to change their offers during the course of the auction
- Non-Discretionary Bid Decrements

Y4 Recommendations: Bidding Environment

Bidding Environment

- Design Parameters
 - Bids in ¢/kWh
 - Tranches of summer load and tranches of winter load
 - "Last-in" slices possible
- Separate Summer and Winter Awards
 - Providers can bid on summer slices only, winter only, or on any combination of summer and winter
 - Lower bids for summer slices win summer award, lower bids on winter slices win winter awards
 - Providers entitled to portion of BGS revenue and revenues given bids and actual loads



Advantages of Recommended Design

Risk and Participation

- The recommended design mitigates the risk to potential providers and is expected to lead to *high participation*.
 - Auction Format
 - Transparency lessens uncertainty. Providers get information throughout the auction on price and quantity offered by rivals (at least in aggregate). Less need to guess reduces risk.
 - Bidding Environment
 - By choosing combination of winter and summer slices, suppliers exercise some control over their exposure to risk from load variation and switching. Providers can bid to align revenues and costs. Bids in ¢/kWh less risky given load variation. "Last-in" slices another possible risk mitigation feature.



More Advantages of Recommended Design

Market Signals

- Auction Format
 - SMR format expected to result in uniform market price. Other mechanisms unlikely to result in a uniform price
- Bidding Environment
 - Separate seasonal prices are determined. Prices reflect cost differences and provide market price differentials across seasons. Single-bid environments do not yield separate seasonal prices; other multi-part bid environment unlikely to yield prices that reflect cost differences across seasons.



Still More Advantages of Recommended Design

Cost

- Number of participants and absence of bias should lead to reduce overall procurement costs.
 - Experience
 - SMR format has been used successfully in numerous settings
 - For Power Purchase Arrangements in Alberta
 - Major utilities and energy players participated
 - For Spectrum Rights
 - Dozens of SMR auctions have been conducted in about a dozen different countries raising over \$100 B

Why is a simple sealed bid or sequential auction format ill-suited for PSE&G's BGS auction?

Example of Sequential Sale: Basic Design

Design Parameters

- Four summer and four winter slices, labeled A to H
- Form of bid: ¢/kWh for a particular slice
- For each slice, lowest bid wins
- Provider of one slice is given revenue corresponding to bid times load of slice

Auction Format

- First slice is chosen at random. Offers are requested for that slice
- Descending price auction
- Once first slice is won, second slice is chosen at random from the remaining slices and offers are requested for that slice
- Process continues until all slices are assigned

Example of Sequential Sale: Bidding Strategy/Outcome

Bidders Face Uncertainty

- Need to guess about future prices when bidding on early slices
- Must submit offer on early slices without knowing the exact load provider would be required to serve
- Need to put offer on one season without knowing whether provider will need to serve load in one season or in both

Expected Consequences

- Identical slices will not sell for identical prices
- Prices may depend on when during the auction the slice was sold

Example of Sequential Sale: Evaluation

Expected Consequences (Continued)

- Prices may rise during the auction if providers that have secured load stop bidding
- Prices may decline during the auction if providers wait expecting to get deals on later slices

Evaluation of Results

- Providers may perceive process as unfair since identical lots did not receive identical prices, *and may challenge auction*
- A high price dispersion means that results provide only a range of market prices
- Overall procurement cost likely could have been lower

Example of Sealed Bids: Basic Design

Design Parameters

- Four summer and four winter slices, labeled A to H
- Form of bid: ¢/kWh for a particular slice
- For each slice, lowest bid wins
- Provider of one slice is given revenue corresponding to bid times load of slice

Auction Format

- A provider submits bids on as many slices as desired
- Bids are submitted in sealed envelopes
- Envelopes are opened and winners for each slice declared

Example of Sealed Bids: Bidding Strategy/Outcome

Bidders Face Uncertainty

- Need to guess both the offers of rivals and the number of slices on which they will bid
- Rival strategy may not be easy to forecast as it includes both a price *and* a proportion of load
- Must submit offers without knowing the exact load provider would be required to serve
- Bidders need to put offer on one season without knowing whether they will need to serve load in one season or in both
- Uncertainty of success and perceived lack of transparency can discourage participation

Example of Sealed Bids: Evaluation

Expected Consequences

- Some slices may get lots of bids and others none
- Identical slices will not sell for identical prices
- Prices will be low for slices that by chance attracted more bids

Evaluation of Results

- Providers may perceive process as unfair since providers of identical slices will not be paid identical amounts and *may challenge results*
- A high price dispersion means that results provide only a range of market prices
- Mechanism to assign unsold slices or to re-auction unsold slices will need to be put in place
- Overall procurement cost likely could have been lower

SMR versus Sealed Bid Auctions

SMR Format

- Bidders get information throughout the auction on price and quantity offered by rivals (potentially in aggregate)
- Less need to guess and transparency lessen uncertainty faced by bidders and encourages participation
- Similar lots tend to sell for similar prices

Tailoring the Format to Circumstances

- Sealed-bid auction preferred for a one-time offering of one item to a small set of bidders
- SMR preferred for a multi-item offering with items that can be substitutes or complements
- SMR also preferred when success of process hinges on winning bids reflecting market prices

SMR versus Sealed Bid and Sequential Auctions

Sealed and Sequential Bids

- Bidders would need to guess about prices of other slices and other bidder strategies
- Equal slices will almost never go for the same prices
- Uncertainty would lower participation and increase prices
- Risk for bidders if synergies exist across slices

SMR

- No need to guess
- Equal slices tend to sell for equal prices
- Reduced uncertainty would increase participation and lower prices
- Reduces risk for bidders if synergies exist across slices

SMR versus Sequential Auctions

Sequential Auction Environment

- Like a sealed bid auction, bidders required to anticipate other bidders' offers in a sequential auction

Sequential Auction Prices

- Declining price anomaly – prices tend to decline in sequential auctions
- Most anxious bidders win first lots at lowest prices
- More patient bidders win later lots at higher prices

Scope of Bidding Environments Analyzed

Analysis of Bidding Environments: Process

Starting Point

- Strawman bidding environments for Y4 and Y5 as developed by the PSE&G BGS Working Group

Method

- NERA evaluated the strawman bidding environments and other bidding environments with an emphasis on:
 - Analyzing possible gaming incentives (using game theoretical analysis)
 - Assessing risk allocation
 - Assessing suitability given characteristics of market and regulatory environment

Bidding Environments

Bid Formats versus Design Parameters

Parameter	Bids in \$/kWh	Awarded	Winner has lowest	Portion of BGS revenue +
Bid Format				
Yearly price	Single bid	Annual contract for slice of BGS load	Single bid	Bid x load served
Weighted	Two-part bid: one for S, one for W	Annual contract for slice of BGS load	Weighted average of S and W bids	S Bid x S load served + W Bid x W load served
Fixed seasonal	Single bid for W	Annual contract for slice of BGS load	Winter bid	Bid x W load served + grossed-up bid x S load served
Separate seasonal	Two-part bid: one for S, one for W	Annual contract for slice of S load or W load or both	W/S bid wins W/S	Bid x load served per season

Bidding Environments

Bid Format versus Evaluative Criteria

Criteria	Risk	Do Bids Provide Good Market Signals or Reflect Incentives to Game the Process	Factors affecting Procurement Costs
Bid Format			
Yearly price	No smoothing Exposed to load variation of system	Bids reflect aggregated information on cost and expectations No seasonal signals	Potentially low Participation
Weighted	No smoothing Exposed to load variation of system	Bids likely to be extreme and unlikely to reflect costs Strong gaming incentives Inaccurate seasonal signals	Potentially low Participation, bias in bids
Fixed seasonal	Some smoothing Exposed to load variation of system	Bids reflect aggregated information on cost and expectations No seasonal signals	Potentially low Participation
Separate seasonal	Can use bids to smooth Some control over load variation	Bids reflect seasonal costs Accurate seasonal signals	Encourages participation, no bias

Separate Seasonal Bids and Risk

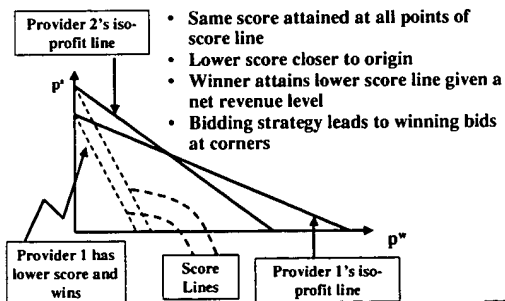
- Two types of risk facing BGS providers
 - Larger than expected customer migration from BGS in winter
 - Higher than expected load in summer
- Both types of risk can be better managed with separate seasonal bids
- Risk facing bidders can be further mitigated by PG&E using fraction of NUGs as “last-in tranches”

“Last-in Tranches”

PSE&G will offer to supply energy only when BGS load falls within a specified range

- Example, if high likelihood that maximum BGS will fall between $x = 6300$ and $7000 = z$, PSEG or POWER can supply any demand beyond 6300 and up to $y \leq 7000$, say 6800.
- Winning bidders are responsible for equal percentages of $BGS \leq x = 6300$ and any $BGS \geq y = 6800$
- By varying x and y , PSEG can significantly mitigate risk of remaining vertical slices
- Figures are illustrative – actual NUG capacity is 700 MW, but peak BGS may be closer to 10K MW

Weighted Multi-Part Bids and Bias



Detailed Y4
Recommendations

Preliminary Auction
Design Specifications

Auction Design Specifications

Simultaneous Multi-Round (SMR) Auction

- Design parameters
- Pre-auction determination
- How the auction unfolds
- Auction closing rules
- Additional auction rules

Experience with SMR in Electricity
Markets: ADRD PPA Auction

Ascending Auction Process

- Simultaneous bidding on all 12 PPAs in each round
- Bids announced after each round
- The high bid (plus a percentage) became the required bid for the next round
- Bidders' eligibility
 - Limited the number of bids each participant could make in each round
 - Forced bidding to become increasingly serious as the auction progressed
- Bidding closed on all PPAs simultaneously

Auction Round and Duration Comparison

Country	Spectrum Band	First Auction	Number of Bidders	Number of Rounds	Auction Duration	Average Rounds per Day
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1
Australia	100 MHz	1	100	10	10 days	1

Y4 Recommendation Details

Design Parameters

- T tranches (need not be identical)
- A starting price for each tranche (details below)
- Controlled bid decrements and time for each round
- Activity requirements
 - If tranches are identical, will certainly want a non-increasing activity requirement
 - If tranches are heterogeneous, might want to weight winter a bit higher than summer or allow 80% +/- activity through much of the auction

Pre-Auction Determinations

- Bidders submit *indicative* bids
 - Indicative bids will be initial offers
 - Starting prices, to be approved by BPU, will be based on these indicative bids
- PSE&G announces starting prices and bid decrements for winter and summer tranches, e.g., \$70 and \$100 and \$0.50 decrements
- PSE&G informs bidders of any supplies they may bid in
- Bidders:
 - Inform PSE&G of maximum amounts they might wish to supply in winter and summer, and
 - Provide proportional security bonds

Round 1

Identical Tranches

- An offer by a bidder is:
 - A first number of equal summer tranches that firm wants to supply at the starting price
 - A second number of equal winter tranches that firm wants to supply at the starting price

Heterogeneous Tranches

- An offer by a bidder is a list of tranches that the firm is offering to serve
- The list can contain summer tranches, or winter tranches or both

Rounds 2, 3, ...

Activity Required for a Bidder

- Determined by number of tranches offered by bidder in the previous round and activity requirement for present round

Required Price for a Tranche

- Same as previous round if there was no excess supply on that season's tranches in previous round
- Price ticks down by one decrement if there was excess supply in previous round for season

Additional Restriction

- *Bidders cannot remove offers on tranches for which the price did not fall*

Auction Closing Rules

- As Long As There Is Some Excess Supply
 - Bidding continues
 - A bid is a *provisional winning bid* in a given round if the bid would win the tranche were the auction to end in that round
 - Bidders not allowed to switch provisional winning bids across seasons
 - At various points in the auction there can be excess supply in one season and not the other
- When bidding ends the offered supply equals the number of available tranches

Sample Round Report with Minimum Information

Tranche	Round Number of Slices	Round 33 Previous Round Offers	Activity % Previous Round Price	Round 80 Current Round Price
Not Available				

Tranche	Round Number Of Slices	33 Previous Round Offers	Activity %	80 Previous Round Price	Current Round Price
Not Available					

[illegible]

Supplemental Round Report

Round	33		Initial Eligibility	
Bidder	Number of Slices		Winter	Summer
	Winter	Summer	Winter	Summer
A	3	1	4	4
B	2	2	4	4
C	5	5	5	3
D	1	1	1	1

Round		33			
<u>Bidder</u>	<u>Number of Slices</u>		<u>Initial Eligibility</u>		
	<u>Winter</u>	<u>Summer</u>	<u>Winter</u>	<u>Summer</u>	
A	3	1	4	4	
B	2	2	4	4	
C	5	5	5	3	
D	4	5			

Other Auction Details

- Pace
 - Length of rounds; size of bid decrements
 - Non-discretionary bid decrements prevent signaling and give auction authority control of pace
- Information
 - Bidders told all offers or only provisionally winning bids
- Tie-Breaking Procedures
- Closing Rule
 - Do prices keep going down past where closing can occur?
- Note:
 - At cost of significant added complexity, we can allow combined summer/winter bids
 - Format can be extended to N customer segments, say for Y5



- Length of rounds; size of bid decrements
- Non-discretionary bid decrements prevent signaling and give auction authority control of pace

- Bidders told all offers or only provisionally winning bids

Closing Rule

- Do prices keep occurring?

- At cost of significant added complexity, we can allow combined summer/winter bids
- Format can be extended to N customer segments, say for Y5

Summary Assessment Y4

Market signals

- Weighted multi-part bids likely to yield extreme bids. Bids do not reflect costs and are not reliable signals of market prices.
- Prices in yearly bid schemes and fixed-seasonal formula reflect aggregated information about cost and load expectations.
- Separate summer winter is the only scheme likely to yield signals of market price and to reveal market price differentials.

Risk and Participation

- Schemes vary in how average revenue is smoothed across seasons. Weighted bids is worst, separate awards is best.
- Exposure to load variation of system and to switching risk unmitigated except in separate seasonal awards.
- Highest participation expected with separate seasonal awards.

Summary Assessment Y4

Continued ...

Cost

- Absence of bias in summer separate seasonal awards should lead to lower cost of procurement
- High participation and competition at the auction should also contribute to lower cost

Differences: Y4 versus Y5

In Y4

- Customers pay set BGS rates
- Bids could reflect seasonal differentials

In Y5

- Customers could pay rates that are some function of bids ("pass through")
- Offers can reflect differences of serving different customer classes

Preliminary Analysis Y5

Differences Y4 versus Y5

- BGS rates and bids at most could reflect seasonal differentials
- In Y5, customers could pay rates that are some function of bids ("pass through") and bids could reflect differences in customer classes
- Bidding Schemes
- Extension of Y4 analysis: weighted average of bids can lead to extreme prices even with pass through
 - Strawman – Desirable features of separate summer/ winter replicated by awarding customer classes separately.

Appendix

Details of Analysis for Different Bidding Environments Y4 versus Y5

Weighted Multi-Part Bids: Description of Environment

Design Parameters

- Provider offers different rates for summer and winter energy on a slice
 - A ¢/kWh bid for summer and a ¢/kWh bid for winter energy
- Scoring the bids
 - To determine a winner for an annual contract, the bids must be weighted in some fashion
 - A provider's score is the weighted average of summer and winter offers
 - The weights would be based on PSE&G's projected summer and winter loads
- Revenue from bid: for each season, bid times load served in the season

Weighted Multi-Part Bids: Expected Outcome

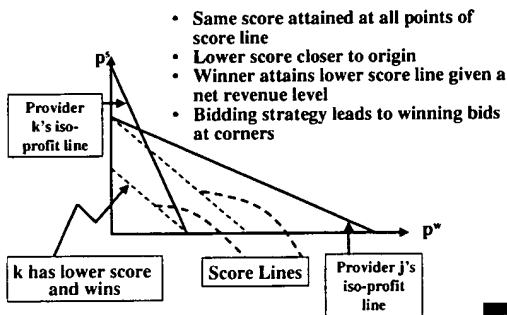
Bidding Strategy

- A provider has own estimates of the proportions of load in summer and winter. These estimates are in general different from the auction weights.
- A bidder has a strong incentive to bid high on the season that appears under-weighted by the auction weights.
- In this way the bidder lowers his score while maintaining his estimated profits.

Winning Bidders

- Auction selects for providers that have expectations very different from PSE&G's.

Weighted Multi-Part Bids: Illustration



Weighted Multi-Part Bids: Evaluation

Assessment

- Market Signals
 - Summer and winter costs and anticipated summer and winter demands. Expectations about summer and winter loads can be driving force behind bids. Prices are likely to be extreme and not to reflect costs.
- Risk and Participation
 - Providers exposed to load variation of system and to switching risk. With corner bidding average revenue is earned in one season. Participation may be discouraged because of risk associated with bid structure.
- Cost
 - Low participation may lead to high cost of provision.

Yearly Price: Environment and Strategy

Design Parameters

- Providers submit a single bid
- Revenue from bid: bid times load served

Bidding Strategy

- Providers make lowest offer given targeted margin over average cost and rival strategy
- Offer depends on expected summer/winter costs, expected summer/winter loads and rival strategy

Winning Bidders

- Auction selects for providers that offer lower overall average cost (from lower profit target, greater expected load, etc.)

Yearly Price: Evaluation

Assessment

- Risk and Participation
 - Providers exposed to load variation of system and to switching risk. Average revenue is constant even though providers' costs may vary significantly during the year. Participation may be discouraged because providers perceive bid structure to involve significant risk.

Market Signals

- Prices reveal aggregated information about cost and expectations. However, bids cannot determine seasonal differentials.
- Cost
 - Low participation may lead to high cost of provision.

Fixed-Seasonal Formula: Environment

Bidding Environment

- Providers submit a single bid which is transformed into seasonal prices through a formula
 - Fixed seasonal differential
 - The bid is a winter rate and in summer providers get their bid + a fixed number of ϵ/kWh
 - Fixed seasonal ratio
 - This bid is a winter rate. In summer providers get k times their bid
- Providers win a slice of whole system
- Revenue from bid:
 - Bid times load served in winter
 - Bid with add-on times load served in summer

Fixed-Seasonal Formula: Expected Outcome

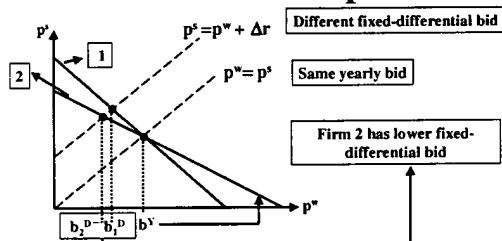
Bidding Strategy

- Providers make lowest offer given targeted margin over average cost, expectations of seasonal loads and rival strategy
- For any given yearly bid, there is a bid for a fixed seasonal formula that yields the same profit

Winning Bidders – Compared to a yearly bid:

- Winners are the same when expectations of loads are “similar enough”
- If expectations vary significantly, fixed-seasonal bids favor firms expecting high summer loads
- Firm expecting higher proportion of load in summer would in general submit lower bid under fixed-seasonal formula

Fixed-Seasonal Formula: Illustrative Example



- Firm 2 expects higher proportion of load in summer when there is a higher per unit price
- Firm 2 willing to bid less for same profit
($b^D = b^y - (Q^s/Q) \Delta r$)

Fixed-Seasonal Formula: Evaluation

Assessment

- Market Signals
 - Prices reveal aggregated information about cost and expectations. However, bids cannot determine seasonal differentials.
- Risk and Participation
 - Average revenue varies with season and mitigates risk. Providers exposed to load variation of system and to switching risk.
- Cost
 - Low participation may lead to high cost of provision.

Separate Winter/Summer: Environment

Bidding Environment

- Tranches of system in summer and winter are put on offer separately but at the same auction
- Providers can bid on summer slices only, winter only, or on any combination of summer and winter
- Bid is multi-part
- Revenue from bid
 - Summer bid times load served in summer
 - Winter bid times load served in winter



Separate Winter/Summer: Expected Outcome

Bidding Strategy

- Providers can choose desired combination of summer and winter slices
- Providers make lowest offer given targeted margin over average cost, targeted combination of slices and rival strategy

Winning Bidders

- Winners are those that can serve slices most efficiently
- Auction expected to work well if complementarities across seasonal slices similar across bidders



Separate Winter/Summer: Evaluation

Assessment

- Market signals
 - Prices reflect cost differences and are reliable signals of market price differentials across seasons.
- Risk and participation
 - By choosing combination of winter and summer slices, providers exercise some control over their exposure to risk from load variation and switching. Providers can bid to align revenues and costs.
- Cost
 - Design expected to lead to high participation. High participation would lead to low cost of provision.



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Donner, Irah

From: david salant [dsalantsprint@earthlink.net]
Sent: Friday, August 06, 2004 10:24 AM
To: jg@gentinlaw.com; Donner, Irah
Cc: David
Subject: Re: FedEx to Dr. Salant Today

Mr. Donner:

I did receive the Fed Ex late yesterday. Thanks. I am awaiting instruction from Mr. Gentin before I can sign that document and Fed Ex and Fax to you. I believe Mr. Gentin is awaiting some response from you regarding a few matters, e.g., the proposal and the side letter.

Thanks

David Salant

At 10:31 AM 8/4/2004, Jonathan Gentin wrote:

Irah --

Since Dr. Salant does not have a copy of the revised declaration (in which you redacted the power of attorney language), please fedex him a clean copy today (to ensure the Aug. 6 deadline is met) to the following address:

1 Belmont Rd. Townhouse #6
W. Harwich
MA 02671-1338

Thanks,

Jonathan Gentin
Gentin and Associates
<http://www.gentinlaw.com>
Phone: 415-786-4062
Fax: 650-649-1992

David Salant
dsalant@earthlink.net
+1-917-415-0451

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8/6/2004



DECLARATION (37 CFR 1.63) FOR UTILITY APPLICATION

Title of Invention: METHOD AND SYSTEM FOR COMPUTER-BASED
AUCTIONING OF BASIC GENERATION SERVICES

As the below named inventor, I declare that:

The declaration is directed to: Application No. 10/680,407, filed on October 8, 2003.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought;

I have reviewed and understand the contents of the above-identified application;

I have provided comments regarding the above-identified application, including comments regarding inventorship and the claimed subject matter, to Irah Donner, Esq. of the law firm of Wilmer Cutler Pickering Hale & Dorr LLP, the named patent firm (but not my legal representative) for the above-identified application;

I have additional comments regarding the above-identified application to provide to Irah Donner, Esq. of the law firm of Wilmer Cutler Pickering Hale & Dorr LLP. Mr. Donner has not been accessible to receive such comments.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56, including for continuation-in part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

All statements made herein of my own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR: David Joseph Salant

SIGNATURE:

DATE: August 6, 2004

CITIZENSHIP: USA

ADDRESS: 332 Blackfield Drive Tiburon, CA 94920